

17

OIPE

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/788,626

DATE: 06/26/2001  
TIME: 07:31:46

Input Set : A:\401.app.txt  
Output Set: N:\CRF3\06262001\I788626.raw

ENTERED

4 <10 > APPLICANT: Flint, Andrew J.  
5 > Cool, Deborah E.  
8 <120 > TITLE OF INVENTION: IMPROVED ASSAY FOR PROTEIN TYROSINE  
9 > PHOSPHATES  
11 <130 > FILE REFERENCE: 200125.401  
13 <140 > CURRENT APPLICATION NUMBER: US/09/788,626  
14 <141 > CURRENT FILING DATE: 2001-02-13  
16 <160 > NUMBER OF SEQ ID NOS: 40  
18 <170 > SOFTWARE: FastSEQ for Windows Version 4.0  
20 <210 > SEQ ID NO: 1  
21 <211 > LENGTH: 11  
22 <212 > TYPE: PRT  
23 <213 > ORGANISM: Artificial Sequence  
25 <220 > FEATURE:  
26 <221 > NAME/KEY: VARIANT  
27 <222 > LOCATION: (1)...(1)  
28 <223 > OTHER INFORMATION: Xaa = Ile or Val  
30 <221 > NAME/KEY: VARIANT  
31 <222 > LOCATION: (4)...(4)  
32 <223 > OTHER INFORMATION: Xaa = any amino acid  
34 <221 > NAME/KEY: VARIANT  
35 <222 > LOCATION: (7)...(7)  
36 <223 > OTHER INFORMATION: Xaa = any amino acid  
38 <221 > NAME/KEY: VARIANT  
39 <222 > LOCATION: (8)...(8)  
40 <223 > OTHER INFORMATION: Xaa = any amino acid  
42 <221 > NAME/KEY: VARIANT  
43 <222 > LOCATION: (10)...(10)  
44 <223 > OTHER INFORMATION: Xaa = Ser or Thr  
46 <223 > OTHER INFORMATION: Unique signature sequence motif which is invariant  
47 > among all PTPs.  
49 <400 > SEQUENCE: 1  
W--> 50 Xaa His Cys Xaa Ala Gly Xaa Xaa Arg Xaa Gly  
51 1 5 10  
53 <210 > SEQ ID NO: 2  
54 <211 > LENGTH: 254  
55 <212 > TYPE: PRT  
56 <213 > ORGANISM: Homo sapiens  
58 <400 > SEQUENCE: 2  
59 Asp Phe Pro Cys Arg Val Ala Lys Leu Pro Lys Asn Lys Asn Arg Asn  
60 1 5 10 15  
61 Arg Tyr Arg Asp Val Ser Pro Phe Asp His Ser Arg Ile Lys Leu His  
62 20 25 30  
63 Gln Glu Asp Asn Asp Tyr Ile Asn Ala Ser Leu Ile Lys Met Glu Glu  
64 35 40 45  
65 Ala Gln Arg Ser Tyr Ile Leu Thr Gln Gly Pro Leu Pro Asn Thr Cys  
66 50 55 60

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67 Gly His Phe Trp Glu Met Val Trp Glu Gln Lys Ser Arg Gly Val Val  
68 65 70 75 80  
69 Met Leu Asn Arg Val Met Glu Lys Gly Ser Leu Lys Cys Ala Gln Tyr  
70 85 90 95  
71 Trp Pro Gln Lys Glu Glu Lys Glu Met Ile Phe Glu Asp Thr Asn Leu  
72 100 105 110  
73 Lys Leu Thr Leu Ile Ser Glu Asp Ile Lys Ser Tyr Tyr Thr Val Leu  
74 115 120 125  
75 Glu Ile Glu Asn Leu Thr Thr Gln Glu Thr Arg Glu Ile Leu His Phe  
76 130 135 140  
77 His Tyr Thr Thr Trp Pro Asp Phe Gly Val Pro Glu Ser Pro Ala Ser  
78 145 150 155 160  
79 Phe Leu Asn Phe Leu Phe Lys Val Arg Glu Ser Gly Ser Leu Ser Pro  
80 165 170 175  
81 Glu His Gly Pro Val Val His Cys Ser Ala Gly Ile Gly Arg Ser  
82 180 185 190  
83 Gly Thr Phe Cys Leu Ala Asp Thr Cys Leu Leu Leu Met Asp Lys Arg  
84 195 200 205  
85 Lys Asp Pro Ser Ser Val Asp Ile Lys Lys Val Leu Leu Glu Met Arg  
86 210 215 220  
87 Lys Phe Arg Met Gly Leu Ile Gln Thr Ala Asp Gln Leu Arg Phe Ser  
88 225 230 235 240  
89 Tyr Ile Ala Val Ile Glu Gly Ala Lys Phe Ile Met Gly Asp  
90 245 250  
92 <210> SEQ ID NO: 3  
93 <211> LENGTH: 251  
94 <212> TYPE: PRT  
95 <213> ORGANISM: Homo sapiens  
97 <400> SEQUENCE: 3  
98 Asp Tyr Pro His Arg Val Ala Lys Phe Pro Glu Asn Arg Asn Arg Asn  
99 1 5 10 15  
100 Arg Tyr Arg Asp Val Ser Pro Tyr Asp His Ser Arg Val Leu Gln Asn  
101 20 25 30  
102 Ala Glu Asn Asp Tyr Ile Asn Ala Ser Leu Val Asp Ile Glu Glu Ala  
103 35 40 45  
104 Gln Arg Ser Tyr Ile Leu Thr Gln Gly Pro Leu Pro Asn Thr Cys Cys  
105 50 55 60  
106 His Phe Trp Leu Met Val Trp Gln Gln Lys Thr Lys Ala Val Val Met  
107 65 70 75 80  
108 Leu Asn Arg Ile Val Glu Lys Glu Ser Val Lys Cys Ala Gln Tyr Trp  
109 85 90 95  
110 Pro Thr Asp Asp Gln Glu Met Leu Phe Lys Glu Thr Gly Phe Ser Val  
111 100 105 110  
112 Lys Leu Leu Ser Glu Asp Val Lys Ser Tyr Tyr Thr Val Leu Gln Leu  
113 115 120 125  
114 Glu Asn Ile Asn Ser Gly Glu Thr Arg Thr Ile Ser His Phe His Tyr  
115 130 135 140  
116 Thr Thr Trp Pro Asp Phe Gly Val Pro Glu Ser Pro Ala Ser Phe Leu  
117 145 150 155 160

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118 Asn Phe Leu Phe Lys Val Arg Glu Ser Gly Ser Leu Asn Pro Asp His  
119 165 170 175  
120 Gly Pro Ala Val Ile His Cys Ser Ala Gly Ile Gly Arg Ser Gly Thr  
121 186 185 190  
122 Phe Ser Leu Val Asp Thr Cys Leu Val Leu Met Glu Lys Gly Asp Asp  
123 195 200 205  
124 Ile Asn Ile Lys Gln Val Leu Leu Asn Met Arg Lys Tyr Arg Met Gly  
125 210 215 220  
126 Leu Ile Gln Thr Pro Asp Gln Leu Arg Phe Ser Tyr Met Ala Ile Ile  
127 225 230 235 240  
128 Glu Gly Ala Lys Cys Ile Lys Gly Asp Ser Ser  
129 245 250  
130 -210 - SEQ ID NO: 4  
132 -211 - LENGTH: 317  
133 -212 - TYPE: PRT  
134 -213 - ORGANISM: HOMO sapiens  
136 -400 - SEQUENCE: 4  
137 Gly Ile Thr Ala Asp Ser Ser Asn His Pro Asp Asn Lys His Lys Asn  
138 1 5 10 15  
139 Arg Tyr Ile Asn Ile Val Ala Tyr Asp His Ser Arg Val Lys Leu Ala  
140 20 25 30  
141 Gln Leu Ala Glu Lys Asp Gly Lys Leu Thr Asp Tyr Ile Asn Ala Asn  
142 35 40 45  
143 Tyr Val Asp Gly Tyr Asn Arg Pro Lys Ala Tyr Ile Ala Ala Gin Gly  
144 50 55 60  
145 Pro Leu Lys Ser Thr Ala Glu Asp Phe Trp Arg Met Ile Trp Glu His  
146 65 70 75 80  
147 Asn Val Gln Val Ile Val Met Ile Thr Asn Leu Val Glu Lys Gly Arg  
148 85 90 95  
149 Arg Lys Cys Asp Gln Tyr Trp Pro Pro Ala Asp Gly Ser Glu Glu Tyr  
150 100 105 110  
151 Gly Asn Phe Leu Val Thr Gln Lys Ser Val Gln Val Leu Ala Tyr Tyr  
152 115 120 125  
153 Thr Val Phe Thr Leu Arg Asn Thr Lys Ile Lys Lys Gly Ser Gln Lys  
154 130 135 140  
155 Gly Arg Pro Ser Gly Arg Val Val Thr Gln Tyr His Tyr Thr Gln Trp  
156 145 150 155 160  
157 Pro Asp Met Gly Val Pro Glu Tyr Ser Leu Pro Val Leu Thr Phe Val  
158 165 170 175  
159 Arg Lys Ala Ala Tyr Ala Lys Arg His Ala Val Gly Pro Val Val Val  
160 180 185 190  
161 His Cys Ser Ala Gly Val Gly Arg Thr Gly Thr Tyr Ile Val Leu Asp  
162 195 200 205  
163 Ser Met Leu Gln Gln Ile Gln His Glu Gly Thr Val Asn Ile Phe Gly  
164 210 215 220  
165 Phe Leu Lys His Ile Arg Ser Gln Arg Asn Tyr Leu Val Gln Thr Glu  
166 225 230 235 240  
167 Glu Gln Tyr Val Phe Ile His Asp Thr Leu Val Glu Ala Ile Leu Ser  
168 245 250 255

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169 Lys Glu Thr Glu Val Val Leu Asp Ser Met Leu Gln Gln Ile Gln His  
170 260 265 270  
171 Glu Gly Thr Val Asn Ile Phe Gly Phe Leu Lys His Ile Arg Ser Gln  
172 275 280 285  
173 Arg Asn Tyr Leu Val Gln Thr Glu Glu Gln Tyr Val Phe Ile His Asp  
174 290 295 300  
175 Thr Leu Val Glu Ala Ile Leu Ser Lys Glu Thr Glu Val  
176 305 310 315  
177 <210> SEQ ID NO: 5  
178 <211> LENGTH: 316  
179 <212> TYPE: PRT  
180 <213> ORGANISM: Homo sapiens  
181 <400> SEQUENCE: 5  
182 Gly Ile Thr Ala Asp Ser Ser Asn His Pro Asp Asn Lys His Lys Asn  
183 1 5 10 15  
184 Arg Tyr Ile Asn Ile Val Ala Tyr Asp His Ser Arg Val Lys Leu Ala  
185 20 25 30  
186 Gin Leu Ala Glu Lys Asp Gly Lys Leu Thr Asp Tyr Ile Asn Ala Asn  
187 35 40 45  
188 Tyr Val Asp Gly Tyr Asn Arg Pro Lys Ala Tyr Ile Ala Ala Gln Gly  
189 50 55 60  
190 Pro Leu Lys Ser Thr Ala Glu Asp Phe Trp Arg Met Ile Trp Glu His  
191 65 70 75 80  
192 Asn Val Glu Val Ile Val Met Ile Thr Asn Leu Val Glu Lys Gly Arg  
193 85 90 95  
194 Arg Lys Cys Asp Gln Tyr Trp Pro Ala Asp Gly Ser Glu Glu Tyr Gly  
195 100 105 110  
196 Asn Phe Leu Val Thr Gln Lys Ser Val Gln Val Leu Ala Tyr Tyr Thr  
197 115 120 125  
198 Val Phe Thr Leu Arg Asn Thr Lys Ile Lys Lys Gly Ser Gln Lys Gly  
199 130 135 140  
200 Arg Pro Ser Gly Arg Val Val Thr Gln Tyr His Tyr Thr Gln Trp Pro  
201 145 150 155 160  
202 Asp Met Gly Val Pro Glu Tyr Ser Leu Pro Val Leu Thr Phe Val Arg  
203 165 170 175  
204 Lys Ala Ala Tyr Ala Lys Arg His Ala Val Gly Pro Val Val Val His  
205 180 185 190  
206 Cys Ser Ala Gly Val Gly Arg Thr Gly Thr Tyr Ile Val Leu Asp Ser  
207 195 200 205  
208 Met Leu Gln Gln Ile Gln His Glu Gly Thr Val Asn Ile Phe Gly Phe  
209 210 215 220  
210 Leu Lys His Ile Arg Ser Gln Arg Asn Tyr Leu Val Gln Thr Glu Glu  
211 225 230 235 240  
212 Gln Tyr Val Phe Ile His Asp Thr Leu Val Glu Ala Ile Leu Ser Lys  
213 245 250 255  
214 Glu Thr Glu Val Val Leu Asp Ser Met Leu Gln Gln Ile Gln His Glu  
215 260 265 270  
216 Gly Thr Val Asn Ile Phe Gly Phe Leu Lys His Ile Arg Ser Gln Arg  
217 275 280 285  
218 <219>

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220 Asn Tyr Leu Val Gln Ile Glu Glu Gln Tyr Val Phe Ile His Asp Thr  
221 290 295 300  
222 Leu Val Glu Ala Ile Leu Ser Lys Glu Thr Glu Val  
223 305 310 315  
225 <210> SEQ ID NO: 6  
226 <211> LENGTH: 319  
227 <212> TYPE: PRT  
228 <213> ORGANISM: Homo sapiens  
230 <400> SEQUENCE: 6  
231 Asn Ile Thr Ala Glu His Ser Asn His Pro Glu Asn Lys His Lys Asn  
232 1 5 10 15  
233 Arg Tyr Ile Asn Ile Leu Ala Tyr Asp His Ser Arg Val Lys Leu Arg  
234 20 25 30  
235 Pro Leu Pro Gly Lys Asp Ser Lys His Ser Asp Tyr Ile Asn Ala Asn  
236 35 40 45  
237 Tyr Val Asp Gly Tyr Asn Lys Ala Lys Ala Tyr Ile Ala Thr Gln Gly  
238 50 55 60  
239 Pro Leu Lys Ser Thr Phe Glu Asp Phe Trp Arg Met Ile Trp Glu Gln  
240 65 70 75 80  
241 Asn Thr Gly Ile Ile Val Met Ile Thr Asn Leu Val Glu Lys Gly Arg  
242 85 90 95  
243 Arg Lys Cys Asp Gln Tyr Trp Pro Thr Glu Asn Ser Glu Glu Tyr Gly  
244 100 105 110  
245 Asn Ile Ile Val Thr Leu Lys Ser Thr Lys Ile His Ala Cys Tyr Thr  
246 115 120 125  
247 Val Phe Ser Ile Arg Asn Thr Lys Val Lys Lys Gly Gln Lys Gly Asn  
248 130 135 140  
249 Pro Lys Gly Arg Gln Asn Glu Arg Val Val Ile Gln Tyr His Tyr Thr  
250 145 150 155 160  
251 Gln Trp Pro Asp Met Gly Val Pro Glu Tyr Ala Leu Pro Val Leu Thr  
252 165 170 175  
253 Phe Val Arg Arg Ser Ser Ala Ala Arg Met Pro Glu Thr Gly Pro Val  
254 180 185 190  
255 Leu Val His Cys Ser Ala Gly Val Gly Arg Thr Gly Thr Tyr Ile Val  
256 195 200 205  
257 Ile Asp Ser Met Leu Gln Gln Ile Lys Asp Lys Ser Thr Val Asn Val  
258 210 215 220  
259 Leu Gly Phe Leu Lys His Ile Arg Ile Gln Arg Asn Tyr Leu Val Gln  
260 225 230 235 240  
261 Thr Glu Glu Gln Tyr Ile Phe Ile His Asp Ala Leu Leu Glu Ala Ile  
262 245 250 255  
263 Leu Gly Lys Glu Thr Glu Val Val Ile Asp Ser Met Leu Gln Gln Ile  
264 260 265 270  
265 Lys Asp Lys Ser Thr Val Asn Val Leu Gly Phe Leu Lys His Ile Arg  
266 275 280 285  
267 Thr Gln Arg Asn Tyr Leu Val Gln Thr Glu Glu Gln Tyr Ile Phe Ile  
268 290 295 300  
269 His Asp Ala Leu Leu Glu Ala Ile Leu Gly Lys Glu Thr Glu Val  
270 305 310 315

**VERIFICATION SUMMARY**

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TIME: 07:31:47

Input Set : A:\401.app.txt

Output Set: N:\CRF3\06262001\I788626.raw

L:50 M:341 W: 46) "n" or "Xaa" used, for SEQ ID#:1